

Inventor(s): MANABE et al.

Appln. No.: 09 783,035

Series Code ↑

Serial No. ↑

Filed: February 15, 2001

Hon. Commissioner of Patents
Washington, D.C. 20231

Sir:

REPLY/AMENDMENT/LETTER

Group Art Unit 2813

Examiner: K. Christianson

Atty. Dkt. P

276665

F01-243-USdiv

M#

Client Ref

Appln. Title:

LIGHT-EMITTING ALUMINUM
GALLIUM INDIUM NITRIDE
COMPOUND SEMICONDUCTOR
DEVICE HAVING AN IMPROVED
LUMINOUS INTENSITY

Date: August 26, 2002

This is a reply/amendment/letter in the above-identified application and includes the herewith attachment of same date and subject which is incorporated herewith by reference and the signature below is treated as the signature to the attachment in absence of a signature thereto.

FEE REQUIREMENTS FOR CLAIMS AS AMENDED

1. Small Entity claim A. <input checked="" type="checkbox"/> NOT made B. <input type="checkbox"/> Withdrawn C. <input type="checkbox"/> made herewith D. <input type="checkbox"/> made previously For B & C See Required Separate Paper (Pat-256)		Claims remaining after amendment	Highest number previously paid for	Present Extra	Large/Small Entity	Additional Fee	Fee Code Lg/Sm
2. Total Effective Claims		6	**minus 20	0	x \$18/\$9 =	+ \$0	103/203
3. Independent Claims		4	***minus 3	1	x \$84/\$42 =	+ \$84	102/202
4. If amendment enters proper multiple dependent claim(s) into this application for first time (leave blank if this is a reissue application)					add	+ \$280/\$140 =	+ \$0 104/204
5. Original due Date:		<input type="checkbox"/> NONE					
6. Petition is hereby made to extend the original due date to cover the date this response is filed for which the requisite fee is attached		(1 mo)	\$110/\$55 =				115/215
		(2 mos)	\$400/\$200 =		+ \$0		116/216
		(3 mos)	\$920/\$460 =				117/217
		(4 mos)	\$1,440/\$720 =				118/218
		(5 mos)	\$1,960/\$980 =				128/228
7. Enter any previous extension fee paid since above original due date and subtract					- \$0		
8. Extension Fee					+ \$0		
9. If Terminal Disclaimer attached, add Rule 20(d) official fee					+ \$110/\$55	+ \$0	148/248
10. If IDS attached requires Official Fee under Rule 97 (c),					+ \$180	+ \$0	126
or if Rule 97(d) Request					+ \$180		126
11. After-Final Request Fee per rules 129(a) and 17(r)					+ \$740/370	+ \$0	146/246
12. No. of additional inventions for examination per Rule 129(b)					x \$740/370 ea	+ \$0	149/249
13. Request for Continued Examination (RCE)					+ \$740/370	+ \$0	1179/1279
14. Petition fee for						+ \$0	
15. TOTAL FEE =					\$84		
16. *If the entry in this space is less than entry in next space, the "Present Extra" result is "0".							
17. **If the "Highest number previously paid for" in this space is less than 20, write "20" in this space.							
18. ***If the "Highest number previously paid for" in this space is less than 3, write "3" in this space.							
					PLEASE CHARGE OUR DEP. ACCT		

Our Deposit Account No. 03-3975)

(Our Order No. 031317

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CHARGE STATEMENT: The Commissioner is hereby authorized to charge any fee specifically authorized hereafter, or any missing or insufficient fee(s) filed, or asserted to be filed, or which should have been filed herewith or concerning any paper filed hereafter, and which may be required under Rules 16-18 (missing or insufficiencies only) now or hereafter relative to this application and the resulting Official Document under Rule 20, or credit any overpayment, to our Accounting/Order Nos. shown above, for which purpose a duplicate copy of this sheet is attached.

This CHARGE STATEMENT does not authorize charge of the issue fee until/unless an issue fee transmittal sheet is filed.

Query: Is appeal deadline now? If so, file Notice of Appeals separately.

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McLean, VA 22102
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Atty/Sec: KMF/JCC

Pillsbury Winthrop LLP
Intellectual Property Group
By Atty: Kenneth M. Fagin

Sig:

Reg. No. 37,615

Fax: (703) 905-2500

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NOTE: File this cover sheet in duplicate with PTO receipt (PAT-103A) and attachments



#15/Pre-Amendment
9-20-02
JL

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re PATENT APPLICATION of

Confirmation No. 6867

MANABE et al.

Group Art Unit: 2813

Application No. 09/783,035

Examiner: K. Christianson

Filed: February 15, 2001

Title: LIGHT-EMITTING ALUMINUM GALLIUM INDIUM
NITRIDE COMPOUND SEMICONDUCTOR DEVICE
HAVING AN IMPROVED LUMINOUS INTENSITY

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* * * * *

August 26, 2002

FIFTH PRELIMINARY AMENDMENT

Hon. Commissioner of Patents
Washington, D.C.

Dear Sir:

Prior to further consideration on the merits, please add claims 20 and 21 as follows:

20. (New) A method for producing a light-emitting semiconductor device, said method comprising:

forming a substrate;

forming a buffer layer on said substrate;

forming an N-layer of N-type nitrogen-III Group compound semiconductor satisfying the formula $Al_xGa_yIn_{1-x-y}N$, inclusive of $x=0$, $y=0$ and; $x=y=0$;

forming a P-layer of P-type nitrogen-III Group compound semiconductor satisfying formula $Al_xGa_yIn_{1-x-y}N$; and

forming between said N-layer and said P-layer an intervening layer of nitrogen-III Group compound semiconductor satisfying the formula $Al_xGa_yIn_{1-x-y}N$, said intervening layer being doped with a P-type dopant.

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concluded*

21. (New) The method according to claim 20, wherein said intervening layer comprises a Zn-doped layer.
